CALIFORNIA HIGH-SPEED TRAIN PROGRAM EIR/EIS

Task 1.1.1

Program Environmental Process

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TABLE OF CONTENTS

1.0 OVERVIEW 1

2.0 PROJECT BACKGROUND 2

2.1 PROJECT DEVELOPMENT PROCESS 2
2.1.1 Project Organization 4
2.1.2 Project Schedule 4

3.0 PROGRAM ENVIRONMENTAL DOCUMENT 7

3.1 PROGRAM EIR/EIS PROCESS 8
3.1.1 Program Framework Definition 9
3.1.2 Resource Agency Involvement 9
3.1.3 Public and Agency Involvement 10
3.1.4 Preliminary Purpose and Need Statement/Objectives and System Alternatives 11
3.1.5 Regional HSR Alignment Screening Evaluation 11
3.1.6 Operations Analysis 12
3.1.7 Technical Scopes/Methodologies/Guidelines 12
3.1.8 FRA Compatibility Coordination 14
3.1.9 Regional Engineering/Environmental Analyses and Technical Studies 14
3.1.10 Draft Program EIR/EIS 14
3.1.11 Final Program EIR/EIS 17
3.1.12 Implementation Plan 18

LIST OF FIGURES

2.1-1 OVERVIEW OF PROJECT DEVELOPMENT STAGES 3
2.1-2 ALTERNATIVE CORRIDORS AND STATION LOCATIONS 5
2.1-3 CALIFORNIA HIGH-SPEED RAIL PROGRAM TEAM ORGANIZATION 6
2.1-4 SUMMARY CALIFORNIA HIGH-SPEED RAIL PROGRAM ENVIRONMENTAL DOCUMENT SCHEDULE 6

1.0 OVERVIEW

Implementing the HSR network in California is the responsibility of the nine-member California High-Speed Rail Authority (HSRA). The HSRA is the state agency legislatively directed with planning for the development and implementation of a statewide high-speed train network that is fully coordinated with other public transportation services and capable of achieving speeds of at least 200 mph. The Legislature has granted the HSRA the powers necessary to oversee the construction and operation of a statewide HSR network once financing is secured.

The HSRA has taken the necessary step in implementing a statewide high-speed train system by initiating the state and federal environmental review process - a requirement for agency approvals and permits, corridor preservation, system procurement, and construction. In addressing the requirements for a project of this scale and magnitude, the HSRA is preparing a state program environmental impact report (EIR) and a federal Tier I environmental impact statement (EIS) - the California High-Speed Rail (HSR) Program EIR/EIS. The purpose of utilizing a program environmental review is to formally engage resource agencies and the public in the consideration of alternatives and potential impacts/benefits of HSR as part of the California transportation system. The environmental process will allow for the evaluation of multiple alternatives at a conceptual level to narrow the range of alternatives, prior to detailed project-specific analyses (which may include one or more operable segments of the HSR system). This three-year Program EIR/EIS process will streamline the long-term environmental process, in terms of the efficient use of resources and public and agency concurrence on project elements. Key elements of the Program EIR/EIS process include the strategic program framework definition; early definition of purpose and need and alternatives; HSR alignment/station location screening evaluation; active participation and/or involvement of the resource agencies and the public; and a Draft/Final Program EIR/EIS.

The main goal of the Program EIR/EIS process is to develop an independent and objective analysis which discloses the potential environmental impacts of a proposed statewide high-speed train system and which can be used in making decisions. This program is expected to yield the following outcomes and benefits:

Program EIR/EIS Outcomes
- NEPA and CEQA documentation
- Preferred HSR Alternative - high-speed train technology, corridor alignment, and station locations
- Allows for corridor/right-of-way preservation for future HSR implementation
- Implementation Plan - a phased implementation approach
- Engineering and operational plans based on existing HSR systems
- Comprehensive programmatic public outreach
- Establishment of agency liaisons for future HSR interactions
- Groundwork for public, local, regional, state, and federal support for HSRA program
- Demonstration of HSRA's sensitivity to local environmental concerns
- Foundation for agency/public feedback in future HSRA project development stages
- Streamlined framework for future tiered environmental documentation for HSR implementation

Statewide Benefits
- Long-range statewide planning effort involving multiple jurisdictions
- Initial step in statewide multimodal planning involving rail, highway, and air transportation
- Comprehensive statewide database of environmental resources/constraints along potential corridors
- Streamlining techniques for state and federal resource agency coordination

To accomplish this program environmental effort, the HSRA has procured a Program Management Team and five Regional Study Teams of consultants. Under the HSRA's direction, these consultant teams will be responsible for completing the necessary engineering and environmental studies and preparing and compiling the Program EIR/EIS.

2.0 PROJECT BACKGROUND

The California High-Speed Rail Authority (HSRA) has begun the implementation of a statewide high-speed train network by initiating the formal environmental review process. This significant step in the project development process follows a series of technical and feasibility studies that began in 1993 when the Legislature established the Intercity High-Speed Rail Commission to investigate the feasibility of a new high-speed passenger rail corridor between Los Angeles and Bakersfield through the Tehachapi Mountains. This study was the basis for a statewide corridor evaluation that was conducted to assess environmental and institutional constraints of various corridors and potential ridership between the major destinations connecting San Diego, Los Angeles, Bakersfield, the San Francisco Bay Area, and Sacramento, and led to the 1996 finding that a high-speed rail (HSR) system is technically, environmentally, and economically feasible in California.

Subsequently, the Legislature created the California High-Speed Rail Authority (HSRA) in 1996 to oversee the construction and operation of a statewide network. As part of the HSRA's efforts to implement a high-speed train system, the HSRA prepared a Business Plan that confirmed the need for a high-speed train system in California. In the Business Plan, the HSRA recommended that California proceed to the next logical step – initiating the environmental process by preparing a state program environmental impact report (EIR) and a federal Tier I environmental impact statement (EIS).

2.1 PROJECT DEVELOPMENT PROCESS

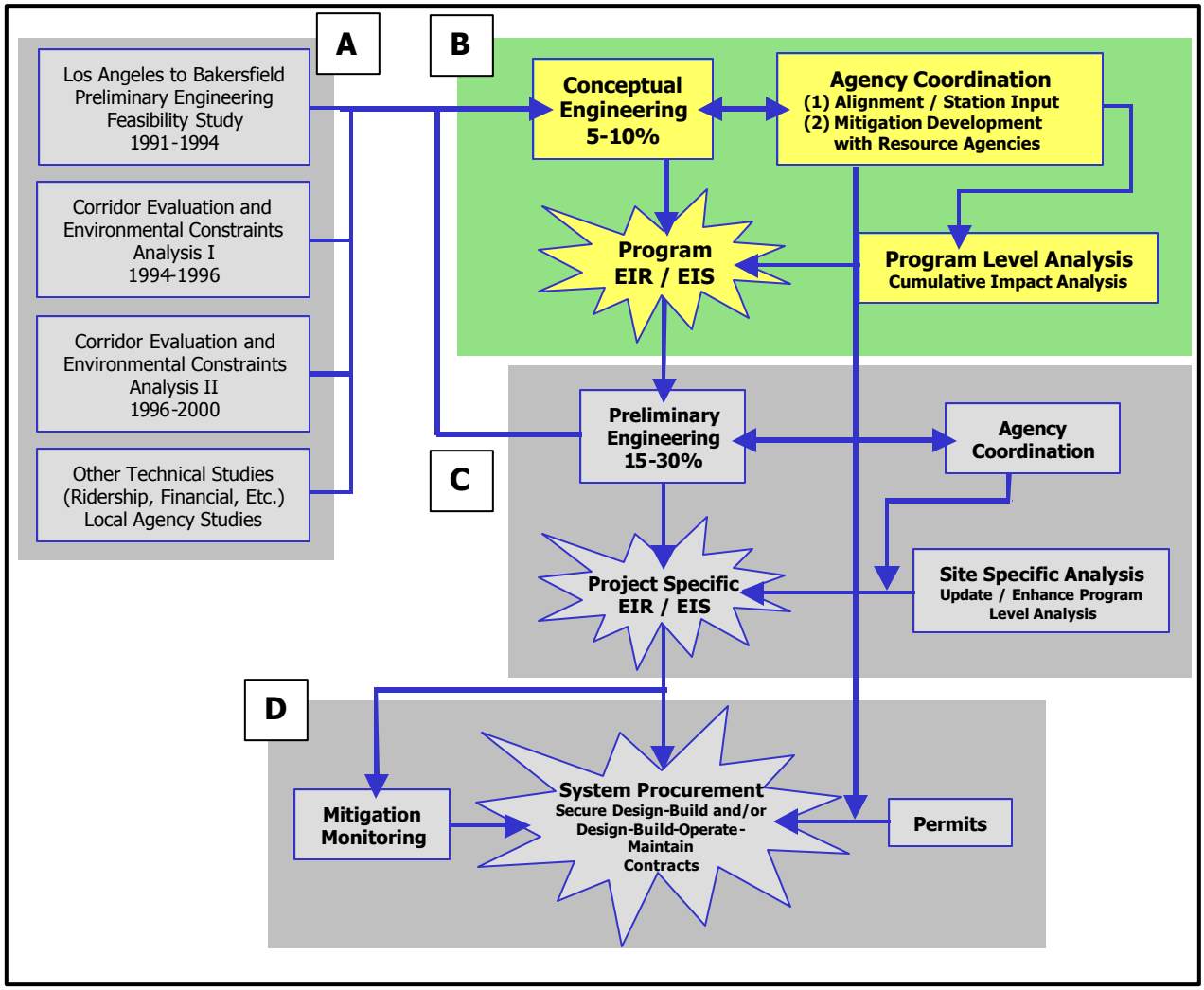
The overall project development process can best be summed up in four main stages as illustrated in Figure 2.1-1.

- Stage A: Feasibility Studies
- **Stage B: Program Environmental Document (<u>current project</u>)**
- Stage C: Project-Specific Environmental Document(s)
- Stage D: Construction/Procurement/Testing and Commission

The current stage of project development is to prepare a Program Environmental Document to satisfy the requirements of the State of California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) for the first tier of environmental review. This stage is anticipated to take approximately three years to complete. In the Program Environmental Document stage, the HSRA is pursuing both CEQA and NEPA clearance simultaneously. While state funds are being used to conduct engineering and environmental analyses and documentation for this stage, no federal funds have been identified. If in the future, federal funds were to be utilized for the project, federal environmental requirements would have to be met. Therefore, by initiating the federal environmental process at this time, the HSRA is structuring the project to meet these requirements. The purpose of utilizing a program or tiered environmental review is to formally engage resource agencies and the public in the consideration of alternatives and potential impacts, and apprise them of benefits of high-speed rail as part of the California transportation system.

With the agencies and public engaged, the program environmental process allows for the evaluation of multiple alternatives at a conceptual level to narrow the range of alternatives prior to detailed project specific analysis. This has a streamlining effect on the overall environmental process in terms of the efficient use of resources, and public and agency concurrence on the project elements.

Figure 2.1-1
OVERVIEW OF PROJECT DEVELOPMENT STAGES



The key elements of the Program Environmental Document stage include: HSR alignment and station screening evaluation; conceptual engineering at a 5-to-10 percent level of detail; operations analysis; environmental impact analyses (consistent with the level of engineering design); proactive resource agency involvement to gain agreement on alternative and potential mitigation; and formal public and agency involvement. At the end of the Program Environmental Document stage, the HSRA, state and federal agencies, and the public will have the required technical analyses to make an informed decision on alignment and stations to be carried forward to more detailed engineering and focused environmental analysis. In conjunction with the Program Environmental Document, an Implementation Plan will be prepared identifying future projects that are part of an overall phased statewide HSR system.

In the Business Plan, the HSRA assumed that at the conclusion of the Program Environmental stage, these future projects could move forward to the next stage of the project development process, subject to approval by the Governor and the Legislature and availability of funding. The Project-Specific Environmental Document(s) stage would include conducting preliminary engineering (15-to-30 percent design) and project-specific environmental review for the alignment and stations and operating alternatives. The project-specific phase would be accomplished incrementally with priority placed on

segments for early implementation and is anticipated to take over four years for the entire statewide system. Once environmental clearances have been obtained for these projects and funding has been established, the projects would move to the Procurement/Construction/Testing and Commissioning stage. During the Construction/Procurement/Testing and Commission stage, the HSRA would secure design-build or design-build-operate-maintain contracts to start construction and procurement. This final implementation phase will be accomplished incrementally with key segments being constructed and opened for operation first.

2.1.1 Project Organization

Implementing the HSR network in California is the responsibility of the nine-member California HSRA established by Chapter 796 of the Statutes of 1996 (Senate Bill 1420, Kopp and Costa). The HSRA is the state agency authorized to develop and implement an intercity HSR system. The HSRA is legislatively directed with planning for the development of a statewide high-speed train network that is fully coordinated with other public transportation services and capable of achieving speeds of at least 200 mph. The Legislature granted the HSRA the powers necessary to oversee the construction and operation of a statewide HSR network once financing is secured.

To accomplish this program environmental effort, the HSRA has procured a Program Management Team and five Regional Study Teams of consultants. The Program Management Team will work with HSRA staff to oversee and review the regional environmental/engineering studies. The Program Management Team will be responsible for using the work of the regional engineering/environmental studies and other previous work in order to prepare and compile the Program EIR/EIS. The five Regional Study Teams are responsible for carrying out the engineering needed to support the identification of environmental impacts and determining the environmental impacts and proposed mitigation measures that will be described in the overall Program EIR/EIS. The teams consist of the following regional limits: Los Angeles-Orange County-San Diego, Sacramento-Bakersfield, Bakersfield-Los Angeles, Bay Area-Merced, and Los Angeles-to-San Diego via the Inland Empire. The overall network of alternative corridors to be considered in this process is illustrated in Figure 2.1-2. The program team organization is illustrated in Figure 2.1-3.

The California HSRA will serve as the Lead Agency for the state CEQA compliance. The Federal Railroad Administration (FRA) is being asked to serve as the Lead Agency for NEPA compliance.

2.1.2 Project Schedule

The program environmental process is expected to take approximately three years to complete. The schedule shown in Figure 2.1-4 illustrates the key elements of the process and their anticipated durations.

Figure 2.1-2
ALTERNATIVE CORRIDORS AND STATION LOCATIONS

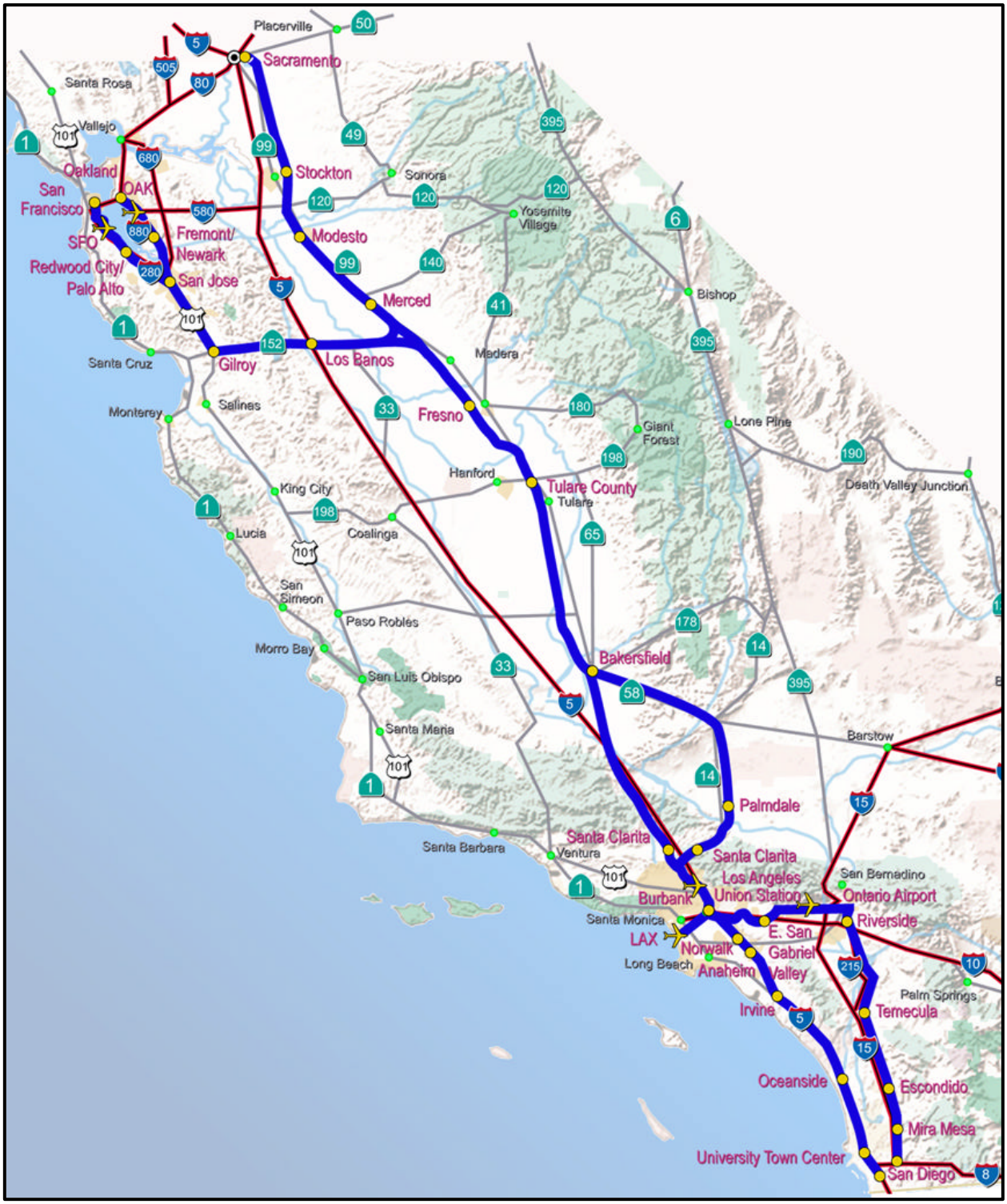


Figure 2.1-3
CALIFORNIA HIGH-SPEED RAIL PROGRAM TEAM ORGANIZATION

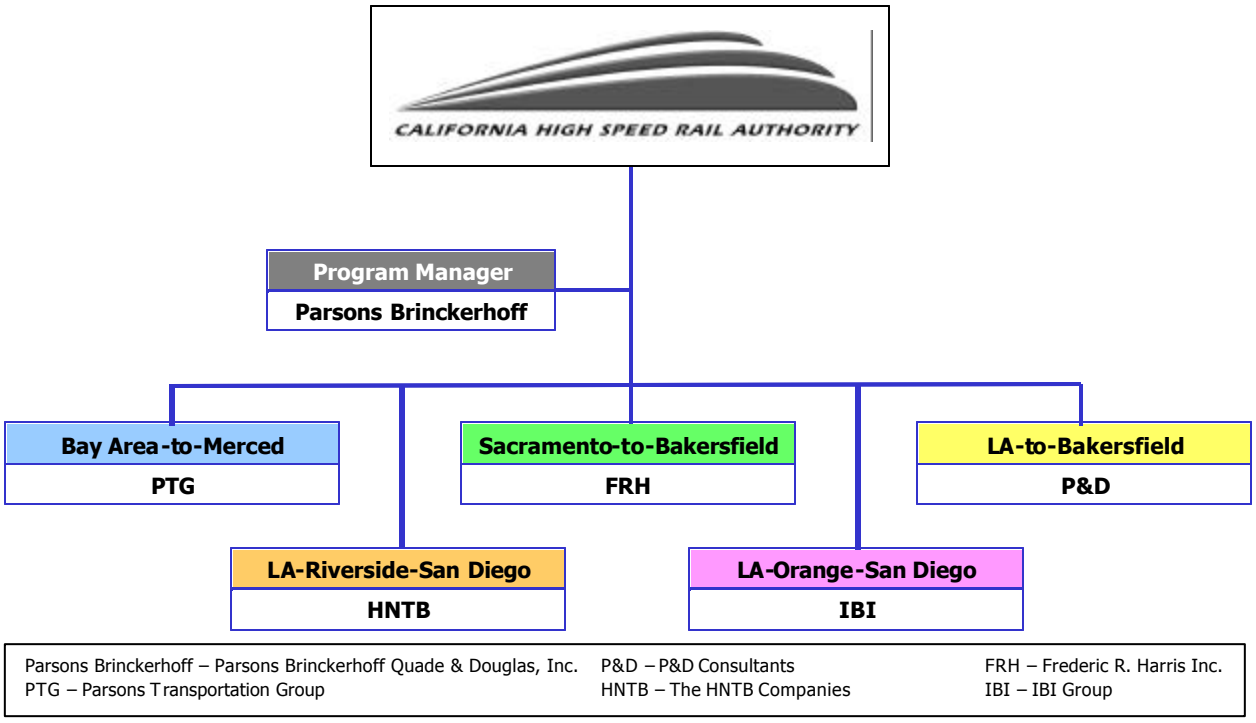
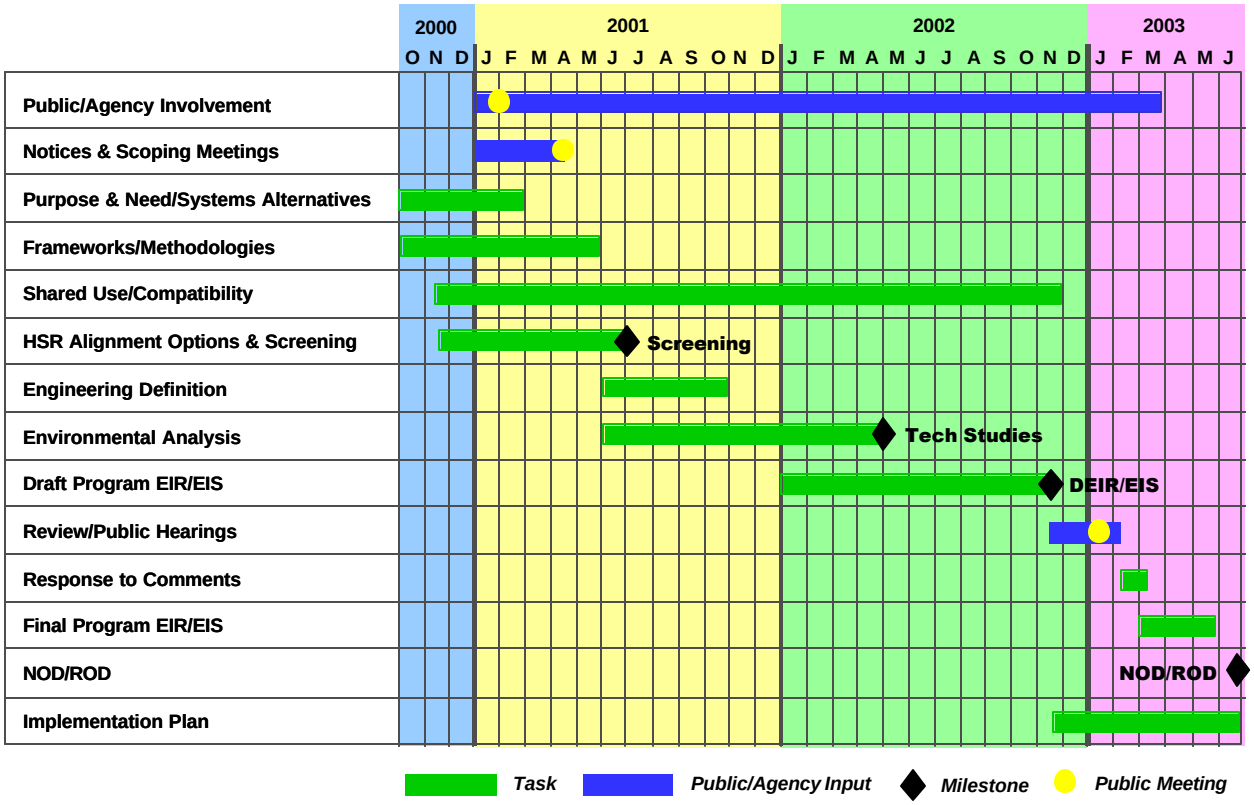


Figure 2.1-4
SUMMARY CALIFORNIA HIGH-SPEED RAIL PROGRAM ENVIRONMENTAL DOCUMENT SCHEDULE



3.0 PROGRAM ENVIRONMENTAL DOCUMENT

The Program Environmental Document for the statewide high-speed train system represents a critically important stage in the overall project development process. The HSRA Program Environmental Document will be prepared in compliance with both CEQA and NEPA. The CEQA document is a Program EIR, and a Tier I EIS is the NEPA-equivalent document.

- California Environmental Quality Act – PROGRAM EIR
  A program EIR is an EIR, which may be prepared on a series of actions that can be characterized as one large project and are related.
- National Environmental Policy Act – TIER I EIS
  "Tiering" refers to the coverage of general matters in broader environmental impact statements with subsequent narrower statements incorporating by reference previous tiers and concentrating on the issues specific to the statement subsequently prepared.

The combined document will be referred to as a Program EIR/EIS. The main goal of the Program EIR/EIS process is to develop an independent and objective analysis fully disclosing the potential environmental impacts of a proposed statewide high-speed train system to be used in making decisions. Additional goals of the Program EIR/EIS include:

- Initiate NEPA and CEQA process.
- Preserve right-of-way for future implementation.
- Develop strategies that maximize the likelihood of achieving the program environmental approval and that streamline the environmental planning process as a whole.
- Determine preferred alternatives for high-speed train technology, alignments, and station locations.
- Seek and receive formal input from federal, state, and local agencies, and from the public regarding a proposed high-speed train system.
- Streamline future resource agency coordination and approvals.
- Develop a phased implementation approach utilizing the foundation established by the Program EIR/EIS.

Although the legally required contents of a Program EIS/EIR are the same as those of a project-level document, in practice considerable differences in the level of detail provided exist because of the general nature, or conceptual designs, of the alternatives to be evaluated. Because of the size of the statewide project a program-level environmental document is needed to narrow the range of alternatives at an early and more conceptual stage of the overall process.

The EIS/EIR is an informational document. The preparation of the Draft Program EIS/EIR, together with its required circulation and review, ensures that an evaluation is conducted of all reasonable alternatives, that all significant transportation and environmental impacts are assessed, and that public input and comments are solicited to help guide the decision-making process. More specifically, the evaluation of a broad range of alternatives helps to ensure that the environmental impacts, benefits, costs and tradeoffs among the alternatives are addressed according to FRA guidelines for meeting NEPA, and that the state guidelines for meeting CEQA are considered by the HSRA. Overall, the Program EIR/EIS will:

- Meet CEQA/NEPA requirements
- Document work done to date
- Document alternatives analysis and attainment of purpose and need
- Document affected environment, impact analysis, and mitigation measures
- Document program cumulative impacts and growth inducement
- Document agency and public involvement and coordination

One of the main advantages of a Program EIR/EIS is to provide a strong foundation for advancing the program to the next stage of project development (Project-Specific Environmental Documents). This approach will streamline the environmental process and future environmental clearances, agreements, and permits. Other advantages of the Program EIR/EIS include the following:

- Fosters economies of scale
- Prioritize decision making
- Consider comprehensive effects and alternatives
- Consider cumulative impacts of the program
- Consider program-wide policies/agreements
- Consider program-wide mitigation measures early to maximize flexibility
- Establish baseline for project-specific activities (project-specific environmental document stage)
- Incorporate environmental documentation by reference and focus subsequent project-specific EIRs

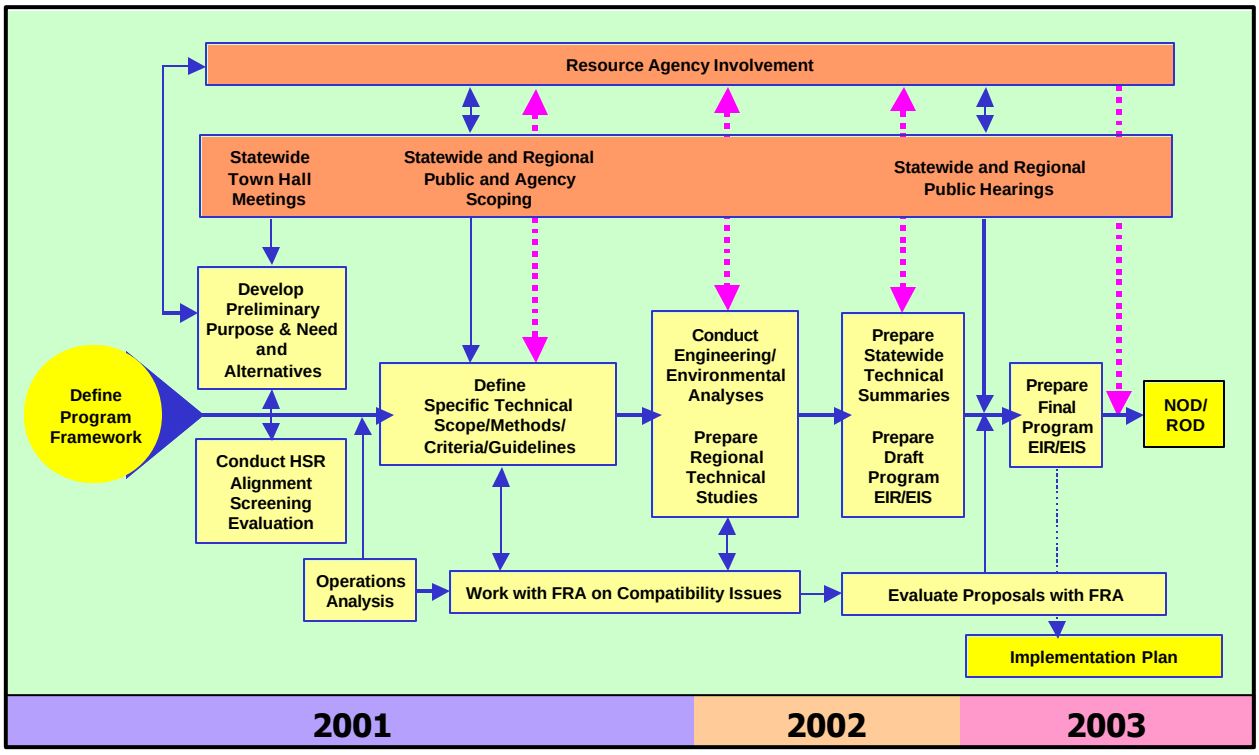
3.1 PROGRAM EIR/EIS PROCESS

The program workflow, as illustrated in Figure 3.1-1, is focused on environmental clearance at a program level for the overall statewide HSR system. The process includes streamlining elements intended to provide the ability to meet the three-year schedule for completing the Program EIR/EIS and to reduce the time required for the overall environmental approval and permitting process. Key elements of the workflow include the strategic definition of program framework, early definition of purpose and need and alternatives, and the active participation and/or involvement of the resource agencies throughout the program. The Program EIR/EIS process includes the following elements:

- Program Framework
- Resource Agency Involvement
- Public and Agency Involvement
- Preliminary Purpose and Need Statement/Objectives and System Alternatives
- Regional HSR Alignment Screening Evaluation
- Operations Analysis
- Technical Scope/Methods/Guidelines
- FRA Compatibility Coordination
- Regional Engineering/Environmental Analyses and Technical Studies
- Draft Program EIR/EIS
- Final Program EIR/EIS
- Implementation Plan

The official start of the environmental process for an EIR is the Notice of Preparation (NOP) that is distributed to the State Clearinghouse as well as to the local and state agencies and interested public. The official start of the federal environmental process begins with the publication of a Notice of Intent (NOI) in the Federal Register.

Figure 3.1-1
Program EIR/EIS Workflow



3.1.1 Program Framework Definition

HSRA Staff and the Program Management Consultant have evaluated the program issues and strategies. Key milestones and products that have value to the HSRA or others beyond their use in this program have been identified, defined, and programmed into each fiscal year. The HSRA staff will guide the project team in prioritizing these items to provide the maximum benefit to the HSRA, the state, and other agencies. Major milestones identified for each fiscal year include:

- Year 1 – HSR alignment screening evaluation; preliminary purpose and need and system alternatives; technical analysis methodologies; town hall meetings; scoping meetings; and resource agency involvement.
- Year 2 – network operations simulations; complete regional environmental and engineering studies; statewide technical summaries; station planning agreements; mitigation menus; and phasing options.
- Year 3 – Draft Program EIR/EIS; public hearings; Final Program EIR/EIS; Notice of Determination/Record of Decision (NOD/ROD) (final CEQA and NEPA processing requirements); and implementation plan.

Each of these will provide the HSRA with products useful for other local, regional, and statewide planning efforts.

3.1.2 Resource Agency Involvement

Because of the scope of the proposed California HSR project, and its statewide importance, a small federal and state Interagency Working Group will be assembled, consisting of representatives of key

resource agencies. The purpose of the Interagency Working Group is to establish communication and cooperation between the HSRA, FRA, and environmental agencies during this stage.

The main objective of Resource Agency Involvement is to seek early and ongoing consultation with resource and regulatory agencies throughout the EIR/EIS preparation process. The Interagency Working Group will assist in developing the purpose and need statement and identifying alignment options that would avoid or minimize potential impacts to natural resources in the study corridors. This interactive process will assist in the screening of alternatives and the identification of those alternatives considered feasible by the agencies. The Interagency Working Group will be requested to identify future permits and approvals necessary for the project and contribute to defining mitigation measures and strategies (as part of an overall statewide Mitigation Menu) that would be included in project planning and design. Participation in the Interagency Working Group does not imply that the agencies necessarily support the project or agree not to comment on the HSRA's work in the future. Resource agencies will continue to exercise their statutory and regulatory requirements relative to the project and its phases. The HSRA will be involved in both the federal-state consultation process and the consultation with local and regional agencies.

3.1.3 Public and Agency Involvement

Through the public and agency involvement program, the HSRA will work to ensure that each step of the study includes extensive public and agency input. Involvement activities will be scheduled so as to ensure timely consideration of input with respect to the technical work currently being conducted. Throughout the analysis period, the HSRA will evaluate the effectiveness of the involvement program and make changes in direction as appropriate. The goals of the public and agency involvement program include the following:

- Educate the public regarding the study process
- Ensure that all issues of concern are addressed
- Present results/progress to the general public, interested groups, and government agencies
- Receive feedback from the public and agencies

The public and agency involvement program will address several kinds of audiences, including:

- General public
- Task forces (if any are established)
- Residents and business owners/operators
- Elected officials/representatives
- Local, county, and regional government agencies

The HSRA will hold Town Hall Meetings, Scoping Meetings, and Public Hearings as part of the public and agency involvement program. Each of these forums has a different agenda to accomplish. Scoping Meetings and Public Hearings are formal requirements of the environmental process, whereas the Town Hall Meetings are being held to help establish program context and to aid in the development of the project purpose and need, the no-build alternative, and the HSR alignments and station locations to be studied.

- Town Hall Meetings (February – March 2001)
  - Stage throughout the state within each region of the study
  - Inform elected officials/public about the HSRA's program
  - Establish baseline purpose and need and terminology
  - Provide program context for future input in Scoping Meetings

- Scoping Meetings (April – May 2001)
  - Stage throughout the state within each region of the study
  - Determine scope, focus, and content of the program EIR/EIS and technical analysis
  - Involve public and local, regional, state, and federal agencies
  - Describe technical approaches prior to full technical analyses

- Public Hearings (early 2003)
  - Stage throughout the state within each region of the study
  - Conduct public review of Draft Program EIR/EIS
  - Record public comments on Draft Program EIR/EIS
  - Stage near the end of the circulation period of the Draft Program EIR/EIS

In addition to the above listed meetings, several forms of communication, presentations, and media will be used to disseminate project information and progress. These include newsletters, the Internet, mailings, newspaper notices, presentations, HSRA Board meetings, and informational meetings with community organizations.

3.1.4 Preliminary Purpose and Need Statement/Objectives and System Alternatives

The purpose and need is one of the most important elements of the environmental process. As defined by NEPA, "purpose" and "need" are closely linked but subtly different. "Need" may be thought of as the problem and "purpose" as an attempt to solve the problem. Purpose establishes why the sponsoring agency is proposing an action that would potentially result in environmental impacts. The HSRA is preparing a clear, well-justified purpose and need that explains to the public and decision-makers that the expenditure of funds for HSR is necessary and worthwhile and that the project is warranted. In addition, although significant environmental impacts will likely occur, the purpose and need will justify why impacts are acceptable based on the project's importance. As a first step, the HSRA is making an assessment of statewide intercity transportation needs in identifying why a high-speed train system should be developed. This helps identify what action is being pursued, and it demonstrates problems that already exist or will exist if HSR is not implemented.

The purpose also provides the basis for selecting reasonable and practicable alternatives for consideration, comparing the alternatives, and selecting a preferred alternative. Similar to the purpose and need required by NEPA, CEQA requires that an EIR identify the objectives of the project sponsor. These objectives provide benchmarks for selecting a reasonable range of alternatives for analysis and a basis of findings for HSRA actions on the project.

Overall, the purpose and need statement would:

- Establish project goals
- Establish objectives for evaluating, screening, and selecting alternatives
- Define the legislative authority for the project
- Define performance criteria
- Define transportation demand and travel growth
- Identify highway, airport, and rail capacity issues
- Identify modal interrelationships
- Embody the message to be set forth to the agencies and the public

3.1.5 Regional HSR Alignment Screening Evaluation

As part of the program environmental process, the HSRA will consider and compare a number of overall system modal alternatives (air, highway, rail) to the proposed HSR system. Further, the evaluation will detail a number of alignment and station location options within the overall High-Speed Rail Alternative.

The Intercity High Speed Rail Commission and the HSRA conducted several studies that evaluated alternative alignment and station options. Some options were carried forward for further consideration and other options were removed from further consideration, based on their relative merit and viability for potential implementation as part of a statewide high-speed train system. The purpose of the screening evaluation is to consider all reasonable and practical alignment and station options at a consistent level of analysis and focus this program environmental analysis on the most viable of these alignment and station options. The most viable options will be presented to the HSRA for resolution/action.

The intent of the screening evaluation is to consider the options at a broad level of analysis in order to move efficiently toward more detailed consideration of the most viable options. As part of the Program EIR/EIS, each of the Regional Consultant Teams will conduct a screening evaluation. The following key activities will be conducted as part of the screening evaluation.

- Review of alignment and station options previously studied and confirmation/reevaluation of past screening decisions.
- Identification and evaluation of alignment and station options not previously evaluated. These options may be identified through the public and agency scoping process and/or through review and analysis of the current conditions in specific segments of the proposed system.
- Evaluation of alignment and station options to identify those with fatal flaws or inherent limitations and constraints that would significantly limit their viability for HSR implementation.
- Screening of options based on their relative merit and viability as part of the proposed statewide HSR system and identification of the most viable options for further study as part of the Program EIR/EIS.

3.1.6 Operations Analysis

Through the use of modeling and simulation techniques, an analysis of high-speed train operations will be conducted to evaluate and refine the conceptual service/operating plan developed in the previous corridor evaluation study. A system-wide model will be developed based on the forecasted ridership demand, the alternative corridor alignments, train performance specifications and a number of service policies to be considered by the HSRA. The operations model will be used to verify the previously developed conceptual service/operating plan in terms of the assumed speeds, travel time estimates and general scheduling parameters. The model will also be used to verify and establish realistic train schedules, capacity requirements, equipment needs, special trackwork needs, maintenance and storage requirements and other operating requirements that define the HSR alignment and station options to be considered. This information will be provided to the regional teams to guide the development and analysis of alternatives in each region.

The initial modeling analysis will be predicated on a dedicated HSR system that is entirely separated from existing commuter and freight rail services. This scenario will be used as a base case on which to test and evaluate the merit of the proposed shared use corridor alternatives. Potential shared use alternatives will be identified throughout the statewide system during the initial phase of this program. As these shared use alternatives are developed, the operations model will be applied to define the capacity requirements and scheduling performance for each potential shared use segment as well as the impacts on the system-wide operation.

3.1.7 Technical Scopes/Methodologies/Guidelines

Engineering and environmental technical scopes, methodologies, and guidelines will be prepared as part of the program by the HSRA and the Program Management Consultant. The purpose is to develop consistent engineering design criteria and specific environmental technical study methodologies for use by Regional Study Consultant teams throughout the state in developing and evaluating alternatives. Information documented in the Regional Studies will be folded into overall Statewide Summary

Documents. The engineering criteria will be consistent with existing high-speed train systems throughout the world, and the environmental technical analysis methodologies will be consistent with NEPA and CEQA.

ENGINEERING FRAMEWORK

Engineering design criteria will be developed to not only provide a framework for the HSR system's technical elements, but to ensure compliance with the overall environmental requirements for the program. Engineering design criteria will be developed for steel-wheel-on-steel-rail and maglev technologies based on the criteria developed in previous studies and information gained from past and current peer reviews (other system operators throughout the world). The engineering design criteria sets the standard for performing the engineering work required by the environmental process and ensures consistency between the engineering documents prepared in the Regional Technical Studies. Specific elements of the engineering framework to be used in conducting the Regional Studies include the following:

- Design Criteria
  - Vehicles
  - Civil Alignments
  - Tunnels
  - Structures
  - Architecture/Stations
  - Facilities
  - Train Control/Signaling
  - Electrification
  - Electromagnetic Interference
  - Construction
  - Fire/Life Safety
- Operations/Maintenance Strategy
- Construction Methodology
- Cost Estimation Methodology

ENVIRONMENTAL FRAMEWORK

The framework for developing environmental impact methodologies goes beyond just developing the analytical approach for the overall program. The environmental framework identifies an overall approach that will streamline the process from Regional Studies to the Program EIR/EIS. This framework will be flexible to address potential unknowns, allowing for adjustments to be made to methodologies or standard practices. The environmental framework includes two key elements: regional environmental issues identification and environmental analysis methodologies.

During preparation of the HSR Alignment Screening Evaluation, a Regional Environmental Issues Identification will also be conducted by the Regional Study Consultants. The purpose of this effort will be to identify if any additional studies are required because of the uniqueness of a region or locality and to provide future input into the Program EIR/EIS. This effort will utilize a standardized checklist for analysis of the HSR alignments and stations within each region. The checklist will be an integral part of preparing the NOP, which officially starts the formal state environmental process.

The Program Management Consultant will develop specific environmental technical analysis that identify the analytical approaches for each environmental issue of concern. This includes data collection, assessment of program-level impacts, and documentation. The program-level methodologies will be consistent with the most current FRA guidance for implementing NEPA as well as state guidelines for implementing CEQA. The methodologies and analytical resources will result in consistent analysis and documentation that will aid in streamlining the development of the Program EIR/EIS and in obtaining mitigation agreements from the various resource agencies.

Specific elements of the environmental framework to be used in conducting the Regional Studies include the following:

- Regional Environmental Issues Identification Checklist
- Environmental Technical Analysis Methodologies
  - Traffic/Circulation/Parking
  - Air Quality
  - Noise & Vibration
  - Energy
  - EMF
  - Flood Hazards, Floodplains, & Water Quality
  - Paleontological Resources
  - Cultural Resources – Architecture, Archaeology, Historic
  - Aesthetics & Visual Quality
  - Biological Resources & Wetlands
  - Hazardous Materials/Waste
  - Land Use, Development, Planning, & Growth
  - Farmlands
  - Public Services & Utilities
  - Section 4(f) Evaluation
  - Community Impacts – Socioeconomics & Environmental Justice

3.1.8 FRA Compatibility Coordination

The HSRA and Program Management Consultant will identify and develop optional strategies to resolve compatibility issues between very high-speed and conventional train equipment for shared corridor use and propose the most viable strategies to the FRA. Several scenarios will be developed proposing high-speed trains in California to share trackage on route segments, where such track sharing represents significant economy over the construction of exclusive tracks, or discouraging such use where construction appears infeasible. A review of current applicable legislation, rule making and existing practices will establish the regulatory baseline principally defined by the FRA. It is from this baseline that approaches will be identified that meet the safety, travel time, and operational goals of the HSRA. This effort will require coordination among the HSRA, FRA, and rail operators to gain input on which options have more merit, based on the prevailing conditions.

3.1.9 Regional Engineering/Environmental Analyses and Technical Studies

Starting in mid-2001, each of the five Regional Consultant Teams will begin technical analyses within the regional study areas. The Regional Consultant Teams will utilize the screening evaluation (see section 3.1.5), engineering and environmental frameworks and methodologies (see section 3.1.7), operations analysis (see section 3.1.6), and input from the Town Hall Meetings and Scoping Meetings (see section 3.1.3) to conduct specific technical analyses and prepare Regional Technical Studies.

Throughout the Program EIR/EIS, the Program Management Team and Regional Consultant Teams will assist the HSRA in performing reviews and checks of methodologies and technical studies, and in coordination efforts with agencies and the public. Specific elements that the Regional Consultant Teams will be developing for inclusion into the Draft Program EIR/EIS include the following:

- Engineering
  - Design criteria review
  - Alternatives definition
  - Regional HSR Alignment Screening Evaluation
  - Plans, cost estimates, technical studies
- Environmental
  - Methodology review
  - Issue specific analyses and technical studies
  - Environmental database (input and updates)

3.1.10 Draft Program EIR/EIS

The Draft Program EIR/EIS will document the purpose and need, environmental process, alternatives evaluation, public and agency coordination, existing environmental conditions, potential environmental

impacts, and recommended mitigation. The Program EIR/EIS will enable the HSRA to examine the generic categories of impact and region-specific effects of each of the alternatives so that measures to avoid adverse environmental effects can be pursued.

The Draft Program EIR/EIS will be prepared in accordance with the latest revisions to the CEQA guidelines and FRA Procedures for Considering Environmental Impacts. Concurrent with the preparation of the Regional Technical Studies and the Statewide Summaries, the Draft Program EIR/EIS will be prepared and include analyses of environmental issues that are anticipated to have a significant effect on the environment. The level of discussion in the Program EIR/EIS will be commensurate with the level of detail provided for the proposed project alternatives. The document will include a discussion of impacts and avoidance, minimization, and mitigation measures. The Program EIR/EIS will incorporate technical analyses, discussion of critical environmental issues identified, analysis of the cumulative effects of the project, program-wide mitigation measures and agreements, and a list of potential permits required. The Draft Program EIR/EIS will also include an independent section under the alternatives discussion that will identify the Preferred Alternative and technology. The Draft Program EIR/EIS will be made available to agencies and the public, following approval by the HSRA and FRA. The Draft Program EIR/EIS is likely to include the following chapters in addition to a cover page for approval signatures and Table of Contents.

- **S.0 Summary**

  The Program EIR/EIS will contain a summary that sums up the environmental document and include any major conclusions, areas of controversy (issues raised by agencies and the public), and the issues to be resolved.

- **1.0 Project Purpose and Need**

  Chapter 1 of the Program EIR/EIS will include the Purpose and Need. The purpose and need statement will be a clear, well-justified discussion that explains the need for the project and justifies the project expenditures based on that need. The discussion will set the stage for the public and decisionmakers to compare the various reasonable alternatives encompassing highways, air, and rail, including the no-build alternative. This chapter will provide the criteria for eliminating given infeasible alternatives early in the Program EIR/EIS process.

- **2.0 Project Alternatives**

  Based on the work completed in the initial HSR Alignment Screening evaluation and other previous studies, a number of key project alternatives will be set forth. This chapter of the Program EIR/EIS will describe each of the system alternatives, including both HSR and non-HSR alternatives and the no-build alternative. All alternatives considered will be presented, including those rejected, and the basis for rejection. The preferred alternative will be highlighted and discussed.

- **3.0 Affected Environment**

  This chapter of the Program EIR/EIS will contain a full description of the environment likely to be affected by the proposed action, providing a lead-in to the environmental impact analysis contained in Chapter 4.0. The Regional Technical Studies prepared earlier will provide the bulk of the information on the affected environment, but Subject areas that were not specifically covered in the Regional Technical Studies will also be included in this chapter.

- **4.0 Environmental Consequences and Mitigation Measures**

  In this chapter of the Program EIR/EIS, environmental impacts for each of the alternatives will be discussed thoroughly, including the relative merit of each for enhancing environmental quality or avoiding environmental impacts; relative significance of impacts in the opinion of federal, state, and local agencies for the short-term (construction period) and long-term (operational). Regional and cumulative impacts will also be considered. Mitigation measure

recommendations will be made based on agency comments and earlier Regional Technical Studies. As in Chapter 3.0, the subject areas not specifically covered in the Regional Technical Studies will be evaluated and documented in this chapter.

- Geology/Soils/Seismicity
- Flood Hazards, Floodplains, & Water Quality
- Traffic/Circulation/Parking
- Air Quality
- Noise and Vibration
- Energy
- EMF
- Biological Resources
- Wetlands and Other Waters of the U.S.
- Land Use, Development, Planning, & Coastal Zone Management
- Community Impacts – Socioeconomics & Environmental Justice
- Agriculture Resources
- Displacements and Relocation
- Public Services & Utilities
- Parks and Recreation
- Paleontological Resources
- Aesthetics and Visual Quality
- Public Safety and Security
- Hazardous Materials/Waste
- Solid Waste Disposal
- Cultural Resources – Architecture, Archaeology, Historic
- Construction Impacts (all subject areas)

- **5.0 Unavoidable Adverse Environmental Impacts**

  Chapter 5 of the Program EIR/EIS will summarize the unavoidable adverse impacts of each of the alternatives and describe mitigation and measures for the long-term, short-term, or construction-period.

- **6.0 The Relationship Between Local Short-Term Uses of Man's Environment and Enhancement of Long-Term Productivity**

  Chapter 6 of the Program EIR/EIS will discuss the relationship between local short-term uses of the environment affected by the alternatives, and the maintenance/enhancement of long-term productivity in that environment.

- **7.0 Significant Irreversible Effects Which Cannot Be Avoided In The Proposed Project Should It Be Implemented**

  This chapter of the Program EIR/EIS will summarize any irreversible or irretrievable resource commitments and/or foreclosures of future options likely to result from the alternatives.

- **8.0 Growth Inducement/Accommodating and Cumulative Impacts**

  Growth inducing impacts, from the proposed project alternatives, including accommodating effects and cumulative impacts will be discussed in this chapter of the Program EIR/EIS. Cumulative impacts that compound the environmental effects will be discussed. Cumulative impacts refer to two or more individual impacts that, when considered together, are considerable or that compound or increase other environmental impacts. Related projects based on General Plan projections or other planning or certified environmental documents will also be discussed.

- **9.0 Section 4(f) Evaluation**

  Chapter 9 of the Program EIR/EIS will consider any impacts of the HSRA on Section 4(f) properties, including parks and recreational areas, wildlife and waterfowl refuges, and historic resources listed on or eligible for the National Register of Historic Places. This chapter will incorporate prior findings of Regional Environmental Technical Studies and assess the statewide impacts.

- **10.0 Public and Agency Involvement**

  This chapter will summarize the public and agency involvement and coordination process that has occurred throughout the project. Regional Public and Agency Involvement Reports provide the basis for this chapter supported by a database of issues/concerns and the documented public feedback obtained from formal and informal public workshops, open houses, scoping meetings, and agency coordination workshops and meetings that have occurred throughout the development of the Program EIR/EIS.

- **11.0 Persons and Organizations Contacted**

  This chapter of the Program EIR/EIS will include a listing of persons and organizations contacted throughout the development of the Program EIR/EIS.

- **12.0 List of Preparers**

  This chapter of the Program EIR/EIS will include a listing of those involved in the preparation of the Program EIR/EIS including the Program Manager, Regional Study Consultants, HSRA staff, FRA staff, and others providing input to the environmental document.

- **13.0 Distribution List**

  This chapter of the Program EIR/EIS will include a listing of the people, organizations, and agencies receiving a copy of the Draft Program EIR/EIS.

- **14.0 Glossary and List of Acronyms**

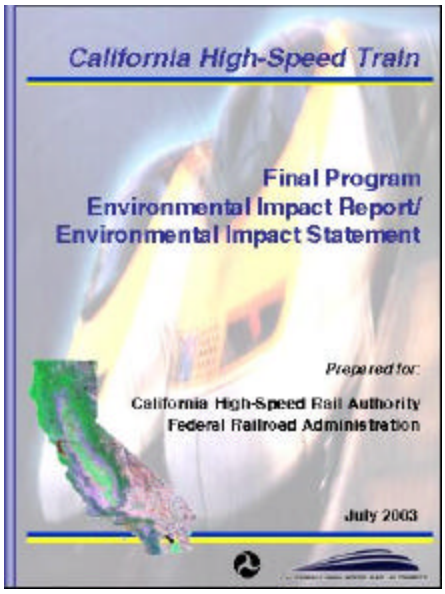
  This chapter of the Program EIR/EIS will include a glossary of terms and list of acronyms used in the Program EIR/EIS. A glossary that is understandable to non-technical readers and list of acronyms to maximize full understanding of the Program EIR/EIS that is being prepared as part of the public and agency involvement program.

- **15.0 Index**

  This chapter of the Program EIR/EIS will include a listing of specific terms and their locations within the Program EIR/EIS to aid the public and agencies in locating key topics of concern.

3.1.11 Final Program EIR/EIS

A Final Program EIR/EIS will finalize the selection of the Preferred Alternative identified in the Draft Program EIR/EIS. It will also document responses to comments received on the Draft Program EIR/EIS. Preparation of the Final Program EIR/EIS will commence at the end of the circulation period and Public Hearings on the Draft Program EIR/EIS. A major component of the Final Program EIR/EIS is the development of responses to comments on the Draft Program EIR/EIS. Commentors will include agencies and the public and all reasonable comments must be answered or addressed in the Final EIR/EIS.



As in the Draft Program EIR/EIS, the Final Program EIR/EIS will include an independent section under the alternatives discussion that will identify the Preferred Alternative and provide the rationale for its selection. The Final Program EIR/EIS will include revisions to, and additional information from, that contained in the Draft Program EIR/EIS which is pertinent; results of new studies; and corrections and updating of text resulting from public/agency

review comments received from circulation of the Draft Program EIR/EIS and the Public Hearing process. Unresolved environmental issues noted in the Draft Program EIR/EIS will be discussed. In conjunction with the Final Program EIR/EIS, a Mitigation Plan will be prepared that documents all mitigation measures, agency involvement, timing of implementation, and responsible parties.

Several requirements will have to be addressed to complete the CEQA EIR process, including:

- Certification
- Findings of Fact
- Statement of Overriding Considerations
- Notice of Determination (NOD)

Before approving the project, the HSRA must certify that the Final Program EIR has been completed in compliance with CEQA, was reviewed and considered by the HSRA Board, and represents the HSRA's independent judgment and analysis. To support its decision on the project for which an EIR was prepared, the HSRA must prepare written findings of fact for each significant environmental impact identified in the EIR. Each finding must contain an ultimate conclusion regarding each significant impact, substantial evidence supporting the conclusion, and an explanation of how this supports the conclusion. In conjunction with the Findings, the HSRA will be required to prepare a Statement of Overriding Considerations, which is a written statement explaining why the HSRA is accepting each significant impact. Specific social, economic, or other factors that justify approving the project despite the impacts will have to be documented. The Notice of Determination is filed after the HSRA Board approves the project. The NOD includes a statement of the significant impacts and states whether mitigation measures were adopted as conditions of approval, findings were prepared, and a Statement of Overriding Considerations were adopted. Once the NOD has been filed with affected planning agencies of cities and counties, then a 30-day statute of limitations period begins for parties wanting to challenge the HSRA's decision.

On the federal side, the FRA must circulate the Final Program EIS before making a decision on the project. A Notice of Availability will be prepared for publication in the Federal Register. A 30-day time period for public review of a final EIS is measured from the date of publication in the Federal Register. Following the 30-day review period, the FRA will prepare a Record of Decision (ROD) that reflects the FRA's final decision, rationale behind that decision, and commitments to monitoring and mitigation.

The state NOD and federal ROD signify the completion of the Program Environmental Document stage.

3.1.12 Implementation Plan

There are a number of issues to resolve and decisions to make regarding the implementation of the proposed California HSR system that can only be addressed following development of the Program EIR/EIS. The Program EIR/EIS will provide important information regarding the definition of the alignments, stations, technology and other elements that comprise the overall statewide HSR system; the potential cumulative impacts and benefits of the proposed system; and the collective input of the affected agencies and public. This information will in turn provide a basis to plan for the implementation of the proposed system. The HSRA will prepare an Implementation Plan, not part of or associated with the NEPA or CEQA environmental process, to address the following topics at a minimum:

- The phasing/staging of the implementation of the overall statewide system
- Funding sources/mechanisms
- The method(s) of procurement, including contracting strategies and phasing
- Right-of-way/corridor preservation strategies and activities
- The phasing and methods for initiating project-specific environmental clearance (i.e., permits and approvals)

- Institutional issues, including agreements with other rail/station operators and arrangements for seamless transfer/connection to other modes of transportation.

Many, if not all, of these issues can begin to be addressed, upon completion of the Draft Program EIR/EIS. Most of these issues will naturally arise as the HSRA responds to comments and prepares the Final Program EIR/EIS; however, these issues do not fit within the intent of the environmental document and will be documented in a separate Implementation Plan.